

## THE TYPIFICATION OF SCIRPUS CAPITATUS L.

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MR. Oliver A. Farwell, in the preceding paper, has sought to show that I erred in transferring<sup>1</sup> the name *Eleocharis capitata* (L.) R. Br. to the species generally known as *Eleocharis tenuis* (Willd.) Schultes. Mr. Farwell, while admitting that the species long known as *E. capitata* must now be called *E. caribaea* (Rottb.) Blake, would typify the Linnaean name *Scirpus capitatus* by a specimen of *Eleocharis obtusa* (Willd.) Schultes collected by Kalm, which he assumes to have been the basis of the Linnaean description, and he makes what he calls the "n. comb." *E. capitatus* (L.) Farwell for the latter plant. His chief reason for so doing seems to be contained in his statement that "Linn had his own description, similar it is true [to that of Gronovius], but quite distinct, and it was based, in my estimation, not on the Gronovian reference and the Clayton plant but on the only plant at that time in his herbarium, which he himself named *S. capitatus*."

Linnaeus' treatment of *Scirpus capitatus* (Sp. Pl. 1: 48. 1753) is so brief that it may be reproduced once again:

5. *Scirpus* culmo tereti nudo setiformi, spica subglobosa.  
*Scirpus* culmo setaceo nudo, spica subglobosa. *Gron. virg.* 12.  
*Habitat in Virginia.*

Two features in Linnaeus' diagnosis which have made several authors<sup>2</sup> doubt that it could have referred to *Eleocharis tenuis*, with its 4-angled culms and slender spikelets, are the description of the culm as terete and the spikelet as subglobose. I believe that too much has been made of these supposed discrepancies. Linnaeus' diagnoses were very brief, and general terms were often used for the sake of brevity. As regards the spikelets, there is no difficulty. Examination of the material of *Eleocharis tenuis* in any large herbarium will disclose plenty of specimens, particularly those with young spikelets, in which these are broad enough to be described as subglobose. Moreover, my photograph of Clayton 380 in the British Museum (type specimen of *Scirpus capitatus*) shows that its spikelets are rather strongly flattened out and might easily have been so described. As regards the "terete" culms, it is easy to show that

<sup>1</sup> RHODORA 20: 23-24. 1918.

<sup>2</sup> Britton, *Torreyia* 19: 246. 1919; Chase in Hitchcock and Standley, *Contr. U. S. Nat. Herb.* 21: 95. 1919; and now Mr. Farwell

this term was loosely used by Linnaeus. Most of his species of *Scirpus* described as possessing terete culms really have them so; but he applied the same adjective "tereti" to the culms of *Scirpus acicularis* (*Eleocharis acicularis*), which are "usually angular and sulcate,"<sup>1</sup> of *S. fluitans*, which are "etwas zusammengedrückt,"<sup>2</sup> of *S. capillaris* (*Stenophyllus capillaris*), which are strongly striate-angled, of *Schoenus mariscus* (*Mariscus serratus*), which are 3-angled above, of *Schoenus mucronatus*, which are "stumpf 3kantig,"<sup>3</sup> of *Eriophorum vaginatum*, which are "oben 3kantig,"<sup>4</sup> and of *Eriophorum virginicum*, which are trigonous above.

It is possible that Linnaeus' own diagnosis, which differs in no essential from that of Gronovius except by the introduction of the word "tereti," was based on specimens of *Eleocharis obtusa* collected by Kalm. There is, however, nothing to prove that this was the case. Mr. Farwell, apparently relying on my statement that there is a sheet of this species in the Linnaean Herbarium "collected by Kalm and known to Linnaeus before 1753," takes it as the type and interprets the name *Eleocharis capitata* accordingly. My statement that Linnaeus had seen Kalm's plant before 1753 is presumably correct, since Kalm is known to have brought his American plants to Linnaeus in 1751; but this sheet, according to the evidence available, was not in the Linnaean Herbarium in 1753! The late Dr. B. Daydon Jackson's "Index to the Linnean Herbarium" (p. 132. 1912) shows that the specimens representing *Scirpus capitatus* in the Linnaean Herbarium were not recorded in the enumeration of its contents in 1753; and Robert Brown's own note (Prodr. Fl. Nov. Holl. 1: 225. 1810), when making the name *Eleocharis capitata*, confirms this and upsets Mr. Farwell's whole case:

*Scirpus capitatus*. Linn. sp. pl. ed. Willd. 1. p. 294. (secundum synonyma Brownii et Sloanii, sed a plantâ virginianâ in Herb. Gron. diversus, haec autem, quoniam Linnaeus nullum exemplar habebat in herbario suo cum primùm Sp. pl. edidit hujus speciei unica auctoritas est).

It will be difficult to controvert Brown's statement that the Clayton plant is the sole authority for Linnaeus' *Scirpus capitatus*. Whether Linnaeus' "tereti" was based on supposition only (all the other species in that group of his genus *Scirpus* having terete culms) or

<sup>1</sup> SVENSON, RHODORA 31: 184. 1929.

<sup>2</sup> Hallier & Brand in Koch, Syn. Deutsch. & Schw. Fl. ed. 3. 3: 2539. 1907.

<sup>3</sup> Hallier & Brand, l. c. 2558.

<sup>4</sup> Hallier & Brand, l. c. 2526.

whether it was based on some specimen, now lost or impracticable to trace, of *Eleocharis obtusa*, *E. caribaea*, or some other species, seems now impossible to establish.<sup>1</sup> The only plant definitely associable with his 1753 description is the specimen of Clayton 380 in the British Museum, and that plant is *Eleocharis tenuis* of authors.

*Scirpus capitatus* of Linnaeus in 1753 is, then, certainly the *Eleocharis tenuis* of modern authors, and the name *Eleocharis capitata* cannot be applied to *E. obtusa*. Is it possible to exclude the original *Scirpus capitatus* from consideration and preserve the name *Eleocharis capitata* (Willd.) R. Br. or *E. capitata* R. Br. for the plant (*E. caribaea* (Rottb.) Blake) which has passed so long under that name? Not according to modern nomenclatorial practice. If Brown had given a new specific name to the plant he described, it would have held; but as he continued the name already used by Linnaeus and Willdenow, the application of his name must be determined by the name-bringing synonym, which must be taken from one of those authors. Willdenow's description and synonymy included also the plant which has generally been known as *Eleocharis capitata* (*E. caribaea*), but his name, his first reference, and his first locality are taken from Linnaeus, so that for purposes of typification his use of the name is the same as that of Linnaeus. It may be remarked in passing that Mr. Farwell's proposal of a third usage of the name *E. capitata* as a new combination is not in accord with either of the codes of nomenclature in current use.

In conclusion, it may be pointed out that my interpretation of *Eleocharis capitata* (L.) R. Br. in the sense of *E. tenuis* (Willd.) Schultes has been followed by Fernald,<sup>2</sup> Merrill,<sup>3</sup> and Svenson,<sup>4</sup> and that Britton<sup>5</sup> and Britton and Wilson,<sup>6</sup> although not dealing with *E.*

<sup>1</sup> When Linnaeus' diagnostic phrase ("nomen specificum") differs from any synonym given, it is evidently based, in practically all cases, either on the synonyms cited or on material examined in the garden or in some herbarium. It is probable, then, that he had seen other specimens which he considered identical with Clayton's plant, which he had presumably examined when assisting Gronovius with the preparation of the "Flora Virginica." In view of Brown's very definite statement and of the record in Jackson's Index, it is obviously impossible to prove that these supposititious specimens were those from Kalm now in the Linnaean Herbarium. In 1918, with all the facts before me, I selected Clayton's plant as the type of the Linnaean name. This designation will hold unless overthrown by real evidence to the contrary, which Mr. Farwell has not produced.

<sup>2</sup> RHODORA 23: 106, footnote. 1921.

<sup>3</sup> Enum. Phil. Flow. Pl. 1: 119. 1923.

<sup>4</sup> RHODORA 31: 128. 1929.

<sup>5</sup> In Abrams, Ill. Fl. Pacific States 1: 262. 1923.

<sup>6</sup> Scient. Surv. Porto Rico & Virg. Isl. 5 (Bot. Porto Rico & Virg. Isl.): 91. 1923.

*tenuis*, have adopted the name *E. caribaea* for the plant generally known as *E. capitata*.

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TRIPSACUM DACTYLOIDES IN MASSACHUSETTS.—Subsequent to the publication of the 7th edition of Gray's Manual, which cites Connecticut as the northeastern limit of range for *Tripsacum dactyloides* L., at least two Rhode Island stations have been discovered, one of which is in Bristol County, on the east side of Narragansett Bay. Thus it is not surprising that an extension of the range of this species into Massachusetts has been made by Mr. G. L. Stebbins at Westport Point while collecting for the New England Botanical Club during its annual field trip last September. He discovered a small colony of this curious grass in marshy ground at the top of a shingle beach within a rod or two of salt water. A specimen has been placed in the Club Herbarium.—R. J. EATON, Cambridge, Mass.

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NOTE ON ASTER AMETHYSTINUS.—The article in RHODORA for January, 1930, discussing *Aster amethystinus* as an obvious hybrid, recalled my own experiences with this rare and fascinating plant. I first noted it in the northern part of Williamstown, Massachusetts, September 23, 1924. I was driving along the road parallel to the Boston & Maine railway track. A large clump in full bloom attracted me by its peculiar amethystine color, and I stopped to investigate and collect. Both *Aster novae-angliae* and *A. multiflorus*, the putative parents, were abundant close by.

Some time after I noticed in the Vermont Flora that the only authentic station for *Aster amethystinus* in that state was at South Pownal, where the plant was collected by W. W. Eggleston before 1900. I reasoned that this must be in the same general region. Accordingly, October 5, 1926, I stopped at the Williamstown station again, climbed the fence to the railway track, and followed it several rods across the state line into Vermont, till I discovered what may well have been Eggleston's original stand of the hybrid. The two parent species were scattered about in considerable profusion.

It would be a very interesting project for some botanical garden or experiment station to breed this interesting hybrid artificially for